

# Speechweb People Category Documentation

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## Abstract

The following is the documentation for the SpeechWeb People category. It contains information about the the applications available in the subdirectory.

## 1 About the Application

The point of this application is to serve as the navigation for the 'People' subdirectory. It contains links to all of the SpeechWeb applications of people you can speak with. You can navigate to this page from the main menu of the SpeechWeb. From all applications, you can go back one page or go home by saying 'go back' or 'go home' respectively. Currently it links to Judy who knows some poems, Geoman who knows about geography, Wadsworth tells jokes and Solar man knows about the Solar System.

## 2 Language and Techniques Used

This SpeechWeb application is written entirely in Haskell. The following techniques are used for answering the questions: guards and lookups using a map. Similar techniques are used in other applications.

```
main :: IO ()
main = getLine >>= putStrLn . interpret
```

The main function is pretty self explanatory, it reads a line from standary input, calls the interpret function on that string then sends the result to standard output which is then sent back to the SpeechWeb interface.

The interpret function is the heart of the application. It finds out what you requested and returns an appropriate answer. It first starts by checking the query against a list of greetings, if you are greeting the application, it will respond with a friendly greeting. Next it checks to see if you are asking for help, if you are, the help message will be displayed. If you aren't saying hello or asking for help, it then determines where you want to go. First garbage words are removed from the query then the remaining statement is looked up using a map.

```
removeGarbageWords :: [String] -> [String] -> [String]
removeGarbageWords trash wds = filter ('notElem' trash) wds
```

Note: ' is a backtick

Originally, a lookup in a binary relation was used but we changed it to a map to go from linear time to logarithmic with respect to the number of questions and responses.

If a match is found, the user is redirected to the correct page. If no response is found the help message is displayed.

## 3 Applications

### 3.1 Wadsworth

Wadsworth is an interesting creation of Paul Meyer. He can tell you a few jokes, some of them more crude than others. If you have a chance stop by to say hello.

### 3.2 Monty

Monty is a pretty lame duck. He also likes jokes but can only tell you one.

### 3.3 Judy

Judy is the princess of poems, even though she only knows one. You can ask her some questions about herself that she would be more than welcome to answer.

### 3.4 Geoman

Geoman knows quite a lot about geography. You can ask him many questions about many different countries. He is also the arch nemesis of Bryan St. Amour, they don't get along.

### 3.5 Solarman

Solarman is one of the more advanced applications in the speechweb domain. He is very knowledgeable of the solar system and you can ask him thousands of questions. He accomplishes this by putting to use the X-SAGIA parser developed at th university of windsor.